

**Grade:** 4<sup>th</sup> – Adult  
**Time:** ½-1 hour  
**Season:** Spring-Fall

## **Reptiles and Amphibians**

### **National Science Teaching Standards**

**A. Science as INQUIRY**

**C. LIFE Science**

### **Background Information:**

Amphibians such as frogs, salamanders, and toads usually spend their adult life at least partially out of the water. They must, however, return to water or at least moist conditions to reproduce. Reptiles do not have to return to water for reproduction. Turtles, for example, leave the water to lay their eggs to loose soil.

Many people perceive snakes as being slimy, like an earthworm. This is far from the truth. A snake is a very clean animal with a dry scaly skin. The skin is made up of scales which overlap each other, similar to scales on a fish.

Amphibians and reptiles are cold blooded. Their body temperature increases or decreases in relation to the temperature of their environment. This does NOT mean that when the outside temperature gets down to –20 degrees that the animal's body temperature is a –20 degrees. They can control body temperature to a certain extent, and they also hibernate in areas below ground that do not drop below freezing.

### **Objective:**

- Students will know the difference between reptiles and amphibians.
- Students will be to identify some of the reptiles and amphibians commonly found at Springbrook State Park.

### **Pre Activity:**

- Discuss the characteristics of amphibians and reptiles.
- Research to find reptiles and amphibians found in Iowa.
- Watch the video “The Snake’s Tale” (contact Springbrook to borrow this video)
- Watch the videos “Reptiles” and “Amphibians” by Eyewitness (If your school does not have it check with your local library. Also, if this is a regular course of study for your grade level, the Eyewitness videos are excellent and not very expensive; maybe your school library could purchase them.)

### **Equipment:**

- Video “The Snakes Tale”
- Specimens of amphibians and reptiles
- Snake bite kit
- Reptiles and amphibians field guide
- Snake-opoly quiz worksheet
- Pencil

**Procedure:**

1. Introduce the lesson by asking students how they feel about reptiles and amphibians. Which ones have they seen?
2. Have students do the Snake-opoly quiz.
3. Discuss the quiz.
4. Explain the difference between reptiles and amphibians.
5. Show video: "The Snakes Tale."
6. Share the amphibians and reptile specimens Springbrook has (live specimens: Little Angie, Crusty and spotted salamanders and snake skins, turtle shells, etc.) Have students observe the characteristics of each. Compare the different species. Discuss their life cycles.
7. Cover use of the snake bite kit

**Post Activities:**

- Approximately 6,000-7,000 people are bitten by poisonous snakes each year in the United States. Of these people bitten, only 14-15 people die. More death are attributed to insect bites. Have students research snakes venomous and non-venomous snakes. Which ones are found in Iowa? Where in Iowa?
- Discuss myths about reptiles and amphibians:
  1. Do toads cause warts?
  2. Does a milk snake actually milk cows?Students may want to make a collection of myths concerning reptiles and amphibians.
- Discuss snake phobias. Let students tell about their phobias and why they feel the way they do.
- Show the slide series, "Reptiles and Amphibians of Iowa."

**Post Discussion:**

- Have students identify food chains including reptiles and/or amphibians.
- Discuss how they fit into the web of life.
- Discuss how reptiles and amphibians have adapted to their environments.
- Extinction of a species occurs when the environment changes. Are there Iowa amphibians and/or reptiles that are threatened or endangered in Iowa? Why?
- Discuss the extinction of the dinosaurs...let students share their scientific theories.